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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,992	10/27/2000	Oleg S. Pinykh	6451.064	7099

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EXAMINER

NGUYEN, KIMBINH T

ART UNIT	PAPER NUMBER
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2671

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,992

Applicant(s)

PIANYKH ET AL.

Examiner

Kimbinh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicants elected claims 14-18 (Group IV) and requested that claims 14-18 be examined. Further, applicants deleted claim 19 and added new claims 20-22.

Accordingly, claims 14-18 and 20-22 are pending in the application.

Compact Disc Submission

2. This application contains a computer program listing of more than three hundred (300) lines. In accordance with 37 CFR 1.96(c), a computer program listing contained on more than three hundred (300) lines, must be submitted as a computer program listing appendix on compact disc conforming to the standards set forth in 37 CFR 1.96(c)(2) and must be appropriately referenced in the specification (see 37 CFR 1.77(b)(4)). Accordingly, applicant is required to cancel the current computer program listing, file a computer program listing appendix on compact disc in compliance with 37 CFR 1.96(c), and insert an appropriate reference to the newly added computer program listing appendix on compact disc at the beginning of the specification.

Claim Objections

3. Claim 20 objected to because of the following informalities: section d): "say" should be replaced by "said". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mumford (5,321,807) in view of Orton et al. (5,465,362).

Claim 14, Mumford discloses storing the image in the memory (copy the image data into display memory; col. 4, lines 60-64); storing a first window position in the memory (a Dom Image Display Board (Dom Board) copies image data corresponding to the visible region of window 1; col. 5, lines 14-16); reading a second window position, which overlaps the first window position (window 2 is on top of window 1; col. 5, lines 1-3; fig. 2); determining a portion of the first window position is not covered by the new window position (as window 2 moves it uncovers a portion of window 1; col. 5, lines 4-5; fig. 2); Mumford does not teach restoring from memory that portion of the image which corresponds to the portion of the first window not covered (visible area) by the second window; however, Orton et al teaches the view system to update (restoring) the visible area by directly writing into the screen buffer; col. 13, lines 45-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the step of recomputing and storing (updating) the visible area of each view taught by Orton's method into the graphics display method taught by Mumford for controlling visible region of a window, because it is generally the task of the view system

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to keep track of the location and size of the view and the view areas which could be drawn and redrawn quickly and effectively as views and windows are moved (col. 3, lines 57-60).

Claim 15, Mumford discloses filling the first and second window positions (window 520 and window 530; figs. 6A, 6B) with a magnified portion of the image (col. 6, lines 46-65).

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mumford (5,321,807) in view of Orton et al. (5,465,362) and further in view of Rhodes et al. (5,546,103).

Claim 16, Mumford does not disclose dividing (clipping) the uncovered portion into two rectangles; and Orton teaches that each window is subdivided in a hierarchy of drawing areas called "views" or uncover portion (col. 3, lines 16-17) and also does not teach rectangles; however, Rhodes et al. teaches a clip list of rectangular sub-windows corresponds to the visible portion (uncovered portion) of the image (col. 12, lines 13-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the windows hierarchy of the visible portion of an image taught by Rhodes into teaching into the graphics display method taught by Mumford and Rhodes for displaying an image in a windowed environment, because applying sub-system windows from windows hierarchy, it would improve video system performance by reducing the amount of time spent by the image generating subsystem (col. 3, lines 1-4).

7. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mumford (5,321,807) in view of Orton et al. (5,465,362) and further in view of Branson (5,740,801).

Claims 17 and 18, Branson discloses removing outlying pixel values (replacing the pixel) from a region of the image to be magnified and redistributing (new distribution) remaining pixel values of the region across an intensity range of the computer system (the maximum range possible of the system) (col. 25, line 27 through col. 26, line 9); applying a median filter to the region of the image to be magnified (col. 25, lines 57-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the median filters taught by Branson into the graphics display method taught by Mumford for reducing the motion artifact of the image, because applying median filter, it would provide an image in superior correction of the artifact without resolution loss inherent in frame doubling or frame averaging (col. 26, lines 15-17).

8. Claims 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Orton et al. (5,465,362) in view of Branson (5,740,801).

Claims 20-22, Orton et al. discloses storing the image in the memory (storing information to be display; col. 2, lines 40-41; col. 18, lines 48-52); identifying a portion of the image in a window (col. 16, lines 33-40; fig. 16); magnifying the portion of the image (col. 16, lines 40-48; fig. 16); Orton does not teach optimizing the contrast of the portion of the image; however, Branson teaches optimizing the contrast of the image (col. 20, lines 46-54), removal of pixels (replacing the pixel) and the redistributing (new

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distribution) of remaining pixels over the intensity range (the maximum range possible for the system between 0-255) of display screen (col. 25, line 27 through col. 26, line 9); applying a median filter to the portion of the image (col. 25, lines 57-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the optimizing the image taught by Branson into the view system taught by Orton's system for enhancing the visual quality of images, because applying the combination of contrast, hue and brightness, it would produce an output image that is the same as or similar to the input video signal (col. 14, lines 58-59).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Chui et al. (6,407,747) discloses computer screen image magnification system and method.
- Kim (6,211,855) discloses technique for controlling screen size of monitor adapted to GUI environment.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kimbinh Nguyen** whose telephone number is **(703) 305-9683**. The examiner can normally be reached **(Monday- Thursday from 7:00 AM to 4:30 PM and alternate Fridays from 7:00 AM to 3:30 PM)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

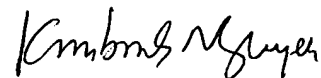
Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Part II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Technology Center 2600 Customer Service Office
whose telephone number is (703) 306-0377.

June 19, 2003



Kimbinh Nguyen

Patent Examiner AU 2671